

-8-

### **Claims**

1. An antenna, comprising first and second spaced radiating elements extending from a vertex at respective first ends and diverging from each other in a direction outward from the vertex to respective second ends, each radiating element second end being connected to a first end of a terminating element through a coupler, the second end of each terminating element being connected to a common ground plane.
2. The antenna of claim 1, further comprising a balun connected to the radiating element respective first ends.
3. The antenna of claim 1, wherein the coupler comprises a reactive circuit element.
4. The antenna of claim 3, wherein the reactive circuit element is a series capacitor.
5. The antenna of claim 3, wherein the reactive circuit element is a meander line.
6. The antenna of claim 1, wherein the spacing between the radiating elements increases linearly in the direction outward from the vertex.
7. The antenna of claim 1, wherein the spacing between the radiating elements increases non-linearly in the direction outward from the vertex.
8. The antenna of claim 1, wherein the radiating elements are solid conductors.

-9-

9. The antenna of claim 1, wherein the radiating elements are radiating slots in a solid conductor.

10. An antenna assembly, comprising a pair of antennas arranged to radiate and receive energy in mutually orthogonal directions, each antenna comprising first and second spaced radiating elements extending from a common vertex region at respective first ends and diverging from each other in a direction outward from the vertex to respective second ends, each radiating element second end being connected to a first end of a terminating element through a coupler, the second end of each terminating element being connected to a common ground plane, each antenna being excited independently of the other.

11. The antenna assembly of claim 10, wherein each antenna is excited by its own balun connected to the respective first ends of the radiating elements of said antenna.

12. The antenna assembly of claim 10, wherein each coupler is a reactive circuit element comprising a selected one of a capacitor and a meander line.

13. The antenna assembly of claim 10, wherein the radiating elements of each antenna selectably comprise one of a solid conductor and radiating slots in a solid conductor.

14. An antenna system, comprising  
radiating element means for radiating and receiving  
electromagnetic energy across a desired frequency range, the radiating element means including conductive strips diverging outwardly from a common vertex region,

-10-

means for exciting the radiating element means,  
means for terminating the radiating element means at a common  
ground plane, and  
means for coupling the radiating means to the terminating means.

15. The antenna system of claim 14, comprising a pair of radiating element means arranged in a V-shaped configuration, said pair of radiating element means being excited by a common exciting means.

16. The antenna system of claim 14, comprising four radiating element means arranged in quadrature to define mutually orthogonal pairs of radiating element means arranged in a V-shaped configuration, each mutually orthogonal pair of radiating element means being excited by an exciting means.

17. The antenna system of claim 14, wherein the radiating element means are solid conductors.

18. The antenna system of claim 14, wherein the radiating element means are slots.

19. The antenna system of claim 14, wherein the means for exciting the radiating element means comprises a balun.

20. The antenna system of claim 14, wherein the means for coupling the radiating means to the terminating means comprises a reactive circuit element.